	Application No.	Applicant(s)
Notice of Allowability	10/670,425	LIU ET AL.
	Examiner	Art Unit	
	Dennis L. Vautrot	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment dated 8/11/2006 in reply to the office action dated 4/7/2006* .

2. ☒ The allowed claim(s) is/are *1, 3, 4, 7 - 9, 12, 14 - 17, 20, 21, 23 - 25, 27 - 29, & 35 - 39*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None of the:

       1.☒ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

       1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20061025* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____ .

DETAILED ACTION

1.   This Action is responsive to the applicant's amendment filed August 11, 2006. After a thorough search and examination of the present application and, in light of a telephone interview conducted October 26, 2006 and the prior art made of record, Claims 1, 3, 4, 7 – 9, 12, 14 – 17, 20, 21, 23 – 25, 27 – 29, and 35 - 39 are allowed.

Priority

2.   Applicant's claim for the benefit of a foreign application, Canada 2,409,882 filed October 25, 2002, under 35 U.S.C. 119(a-d) is acknowledged.

Drawings

3.   The drawings filed on February 17, 2004 are accepted.

Examiner's Amendments

4.   An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

5.   Authorization for this Examiner's amendment, listed below, was given in a telephone interview with Ms. Erin C. Ming (Registration Number 47,797) on October 26, 2006. The interview summary is attached.

6.   Please amend the specification as follows:

On page 4, paragraph [015], lines 12 and 13:

Please delete

http://www-106.ibm.com/developerworks/webservices/library/ws-wsilspec.html

and insert

<<http://www-106.ibm.com/developerworks/webservices/library/ws-wsilspec.html>>

7.   Please amend claims 1 – 4, 7 – 9, 12, 14 – 17, 20 – 23, 25 – 27, 29, 30, 35, 36, 40,

and 41 as follows:

1. (Currently Amended) A computer readable storage medium containing program

instructions, which when executed by a computer, causes the computer to store metadata

related to Web service entities by performing a method comprising:

        browsing a Web service; and

        storing metadata relating to an entity of the Web service as a binding description in a

document, the document being in a format operable to assist in an inspection of a site

comprising a plurality of available Web services,

        wherein the entity of the Web service is one of a Universal Description, Discovery,

and Integration (UDDI) registry entity, a UDDI tModel entity, and a business contact

information entity, and

        wherein the document is in a Web Services Inspection Language (WSIL) format.

2. (Currently Canceled)

3. (Currently Amended) The computer readable <u>storage</u> medium of claim 21, wherein the metadata is stored according to a schema.

4. (Currently Amended) The computer readable <u>storage</u> medium of claim 3, wherein the schema defines a namespace for identifying a location for the schema.

7. (Currently Amended) The computer readable <u>storage</u> medium of claim 3, wherein the schema includes an element for specifying a Uniform Resource Locator for use in querying the entity of the Web service.

8. (Currently Amended) The computer readable <u>storage</u> medium of claim 3, wherein the schema includes an element for specifying the Uniform Resource Locator to which publish requests for the entity of the Web service may be sent.

9. (Currently Amended) The computer readable <u>storage</u> medium of claim 3, wherein the schema includes an element for specifying a Uniform Resource Locator to which registration requests for the entity of the Web service may be sent.

12. (Currently Amended) The computer readable storage medium of claim 3, wherein the metadata includes a business assertion, the business assertion specifying a relationship link between a first business and a second business.

14. (Currently Amended) The computer readable storage medium of claim 12, wherein the schema includes an element for specifying a Uniform Resource Locator for use in locating a UDDI registry at which a second business is registered.

15. (Currently Amended) The computer readable storage medium of claim 12, wherein the schema includes an element for specifying a unique identifier of the second business.

16. (Currently Amended) The computer readable storage medium of claim 12, wherein the schema includes an element for specifying a status of the business assertion.

17. (Currently Amended) The computer readable storage medium of claim 12, wherein the schema includes an element for specifying a type of the business assertion.

20. (Currently Amended) The computer readable storage medium of claim 3, wherein the schema includes an element for specifying a unique identifier for the entity of the Web service.

21. (Currently Amended) A method for storing metadata related to Web service entities

comprising:

browsing a Web service; and

storing metadata relating to an entity of the Web service as a binding description in a

document, the document being in a format operable to assist in an inspection of a site

comprising a plurality of available Web services,

wherein the entity of the Web service is one of a Universal Description,

Discovery, and Integration (UDDI) registry entity, a UDDI tModel entity, and a business

contact information entity, and

wherein the document is in a Web Services Inspection Language (WSIL)

format.

22. (Currently Canceled)

23. (Currently Amended) The method of claim 2221, wherein the metadata is stored

according to a schema.

25. (Currently Amended) A Web services browsing system implemented on a computer

system, the Web services browsing system comprising:

means for browsing a Web service; and

means for storing metadata related to an entity of the Web service as a binding

description in a document, the document being in a format operable to assist in an

inspection of a site comprising a plurality of available Web services,

wherein the entity of the Web service is one of a Universal Description, Discovery,

and Integration (UDDI) registry entity, a UDDI tModel entity, and a business contact

information entity, and

wherein the document is in a Web Services Inspection Language (WSIL) format.

26. (Currently canceled)

27. (Currently Amended) The system of claim 2625, wherein the metadata is stored

according to a schema.

29. (Currently Amended) A computer readable storage medium containing program

instructions, which when executed by a computer, causes the computer to resurrect Web

service entity by performing a method comprising:

displaying metadata related to a plurality of Web service entities, the metadata

being stored as a plurality of binding descriptions in a document, wherein the document is

in a format operable to assist in an inspection of a site comprising a plurality of available

Web services;

selecting a Web service entity from the plurality of Web service entities; and

processing the selected Web service entity,

wherein at least one of the plurality of Web service entities is a Universal

Description Discovery, and Integration (UDDI) registry entity, a UDDI tModel entity, or a

business contact information entity, ~~and~~

wherein at least another of the plurality of Web service entities is a Web Service

Description Language (WSDL) entity, a UDDI business entity, a UDDI service entity, or a

Web Service Inspection Language (WSIL) entity<u>, and</u>

<u>wherein the document is in a WSIL format</u>.

30. (Currently Canceled)

35. (Currently Amended) A method for resurrecting a Web service entity comprising:

displaying metadata related to a plurality of Web service entities, the metadata being

stored as a plurality of binding descriptions in a document, wherein the document is in a

format operable to assist in an inspection of a site comprising a plurality of available Web

services;

selecting a Web service entity from the plurality of Web service entities; and

processing the selected Web service entity,

wherein at least one of the plurality of Web service entities is a Universal

Description Discovery, and Integration (UDDI) registry entity, a UDDI tModel entity, or a

business contact information entity, ~~and~~

wherein at least another of the plurality of Web service entities is a Web Service

Description Language (WSDL) entity, a UDDI business entity, a UDDI service entity, or a

Web Service Inspection Language (WSIL) entity, and

wherein the document is in a WSIL format.

36. (Currently Amended) A Web services browsing system comprising:

a display for displaying metadata related to a plurality of Web service entities, the

metadata being stored as a plurality of binding descriptions in a document, wherein the

document is in a format operable to assist in an inspection of a site comprising a plurality of

available Web services;

means for selecting a Web service entity from the plurality of Web service entities;

and

means for processing the selected Web service entity,

wherein at least one of the plurality of Web service entities is a Universal

Description Discovery, and Integration (UDDI) registry entity, a UDDI tModel entity, or a

business contact information entity, and

wherein at least another of the plurality of Web service entities is a Web Service

Description Language (WSDL) entity, a UDDI business entity, a UDDI service entity, or a

Web Service Inspection Language (WSIL) entity, and

wherein the document is in a WSIL format.

40. (Currently Canceled)

41. (Currently Canceled)

Reasons For Allowance

8.   The following is an examiner's statement of reasons for allowance:

Web Services Inspection Language (WSIL) was first described in a specification

document published in November 2001 as a joint work between IBM® and Microsoft®.

WSIL is a format that ties together Universal Discovery Description and Information (UDDI)

and Web Services Description Language (WSDL). WSIL provides an XML format for

assisting in the inspection of a site for available services and a collection of rules for how

inspection-related information should be made available for consumption. WSIL was

designed to be extensible - where new code can be added to expand the types of entities

that can be stored as binding descriptions. These binding descriptions store the metadata

related to the various entities. Within the specification for WSIL, three binding descriptions

are defined – WSIL binding, UDDI binding, and WSDL binding. The instant application

acknowledges that those binding types are defined in the specification for WSIL, but then

the applicant extends the binding types to three new entities – UDDI registry entity, UDDI

tModel entity, and a business contact information entity.

The three binding descriptions created for those entity types, as described in

the claimed subject matter of each of the independent claims 1, 21, 25, 29, 35, and 36 **are**

novel. The concept of storing metadata in a binding description is not novel, as is obvious

by the three that are defined in the specification, however, **a search of the prior art did**

not reveal any prior <u>binding descriptions</u> storing <u>metadata</u> for the three new entities as described above. With the addition of the three new types of binding descriptions to the independent claims, as well as the addition of the document being written in WSIL format, the claim now appears to be novel and patentably distinct from the prior art.

A thorough search for the prior art in the EAST database and on domains (NPL-ACM, Google.com, NPL-IEEE) has been conducted. The prior art searched and investigated in the database and domains does not fairly teach or suggest the teaching of the claimed subject matter as described above and reflected by the combined elements in each of the independent claims 1, 21, 25, 29, 35, and 36.

The dependent claims 3 – 4, 7 – 9, 12, 14, 15 – 17, 20, and 37 depending on claim 1; 23 – 24 and 38 depending on claim 21; 27 – 28 and 39 depending on claim 25 are also distinct from the prior art for the same reason.

9.   Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis L. Vautrot whose telephone number is 571-272-2184. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DV
10/26/2006

JOHN COTTINGHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100